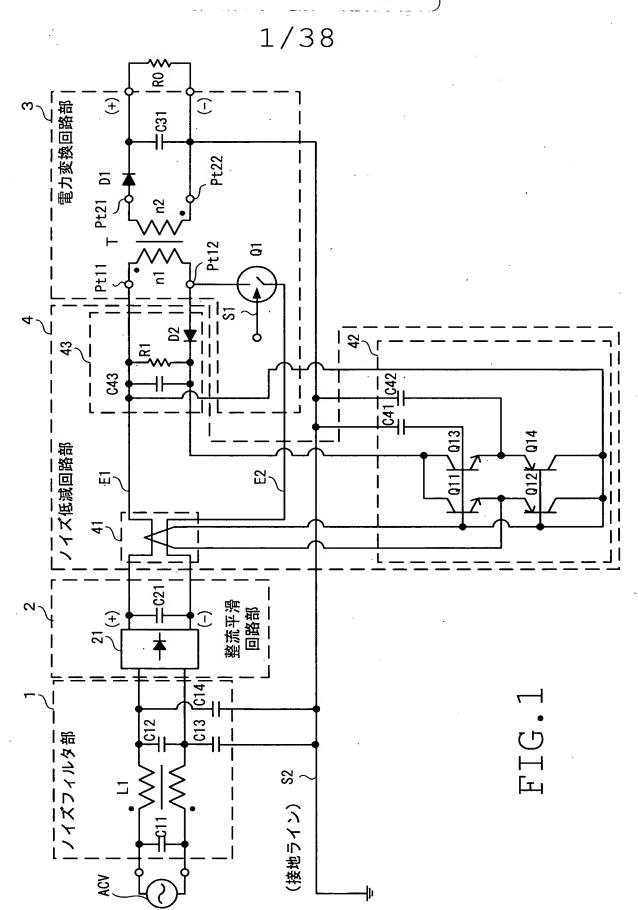
Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 1 Sheet 1 of 38

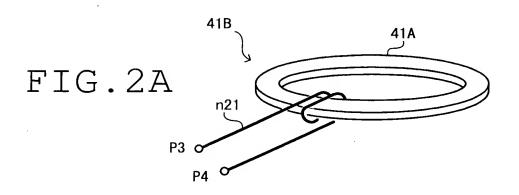


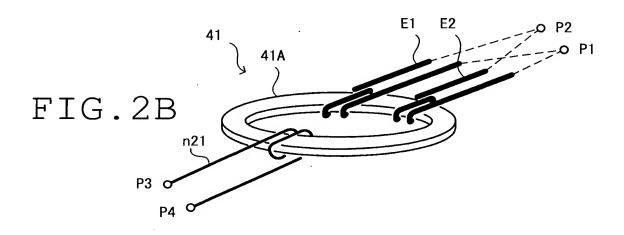
Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2

Contact: Mitchell P. Brook; 858-720-6300

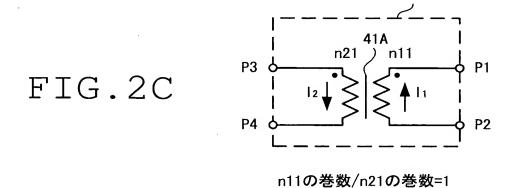
FIGS. 2A - 2C Sheet 2 of 38

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Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003

Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300

FIG. 3 Sheet 3 of 38

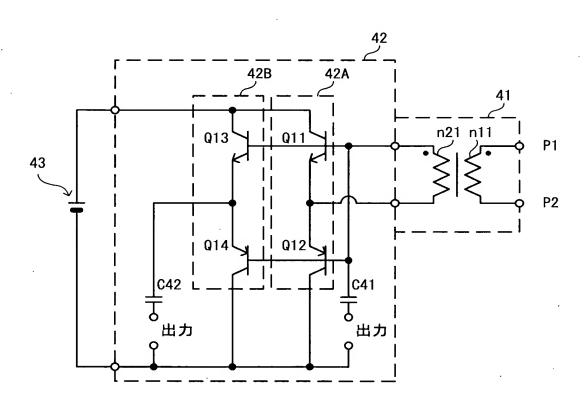
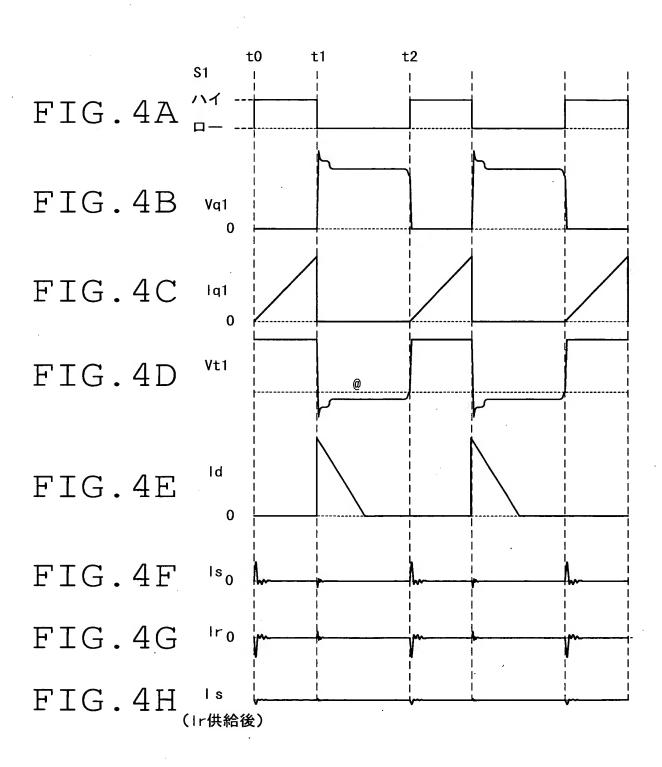


FIG.3

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 4A - 4H Sheet 4 of 38

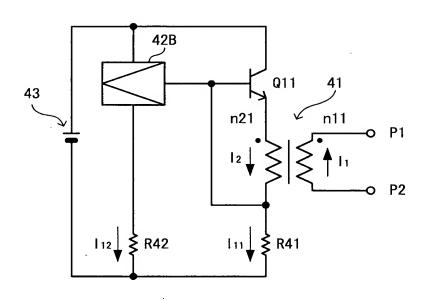


Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2

Contact: Mitchell P. Brook; 858-720-6300

FIG. 5 Sheet 5 of 38

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 $i_1=i+i*(r41/r42)$

(i1:電流I1の電流値)

i 2= i

(i2:電流I2の電流値)

i 11= i

(in:電流Inの電流値)

i12=i*(r41/r42)

(i12:電流I12の電流値)

FIG.5

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 6 Sheet 6 of 38

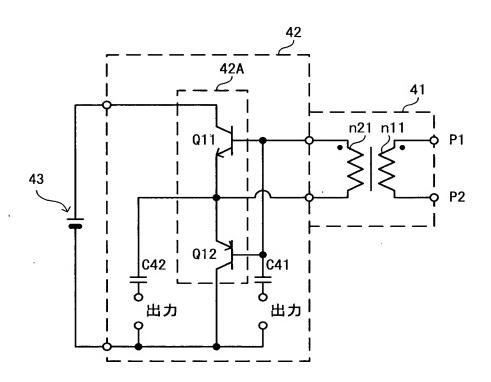


FIG.6

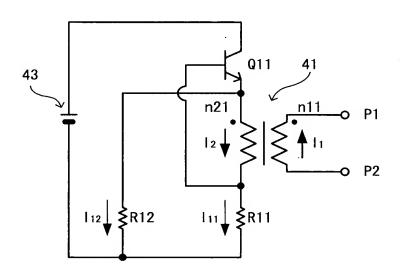
Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003

Atty. Docket No.: 31904-2

Contact: Mitchell P. Brook; 858-720-6300

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i i=i+i×(r11/r12)(i i:電流IIの電流値)

i₂=i

(i2:電流12の電流値)

i 11=i

(in:電流Inの電流値)

i12=i×(r11/r12) (i12:電流112の電流値)

FIG.7

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 8 Sheet 8 of 38

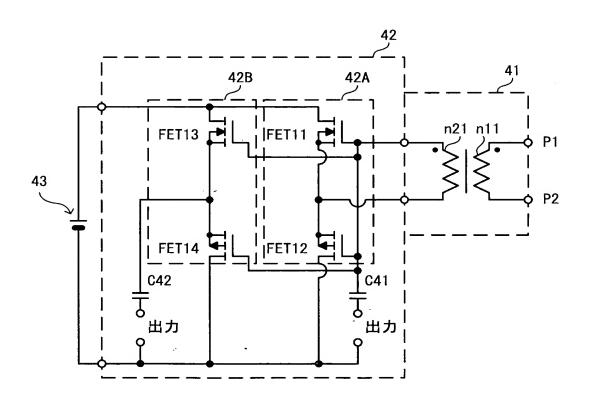


FIG.8

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 9 Sheet 9 of 38

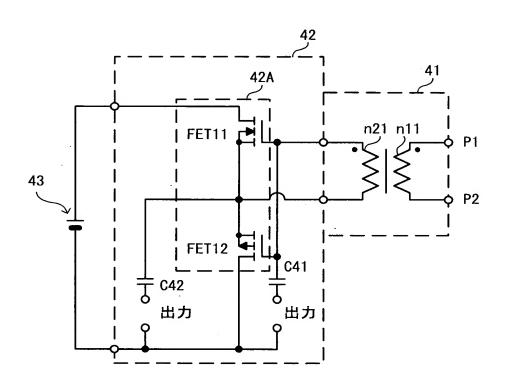
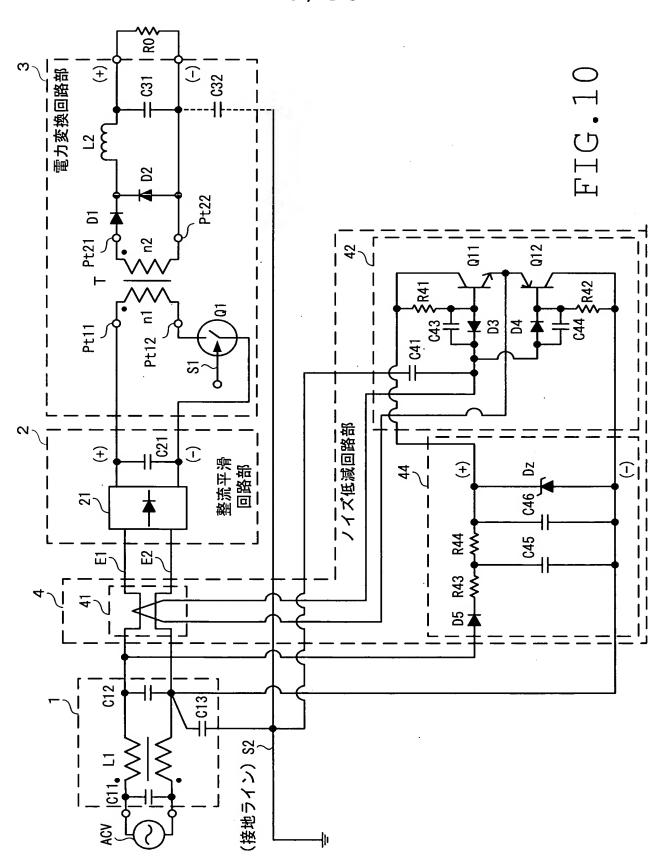


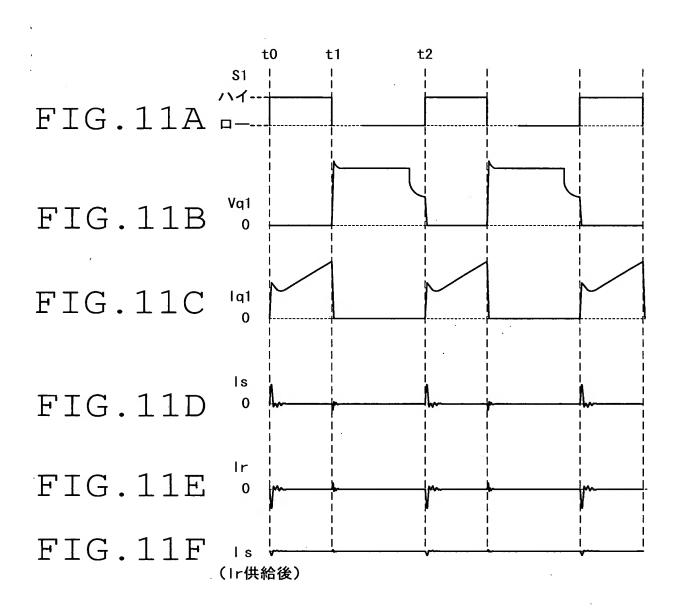
FIG.9

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 10 Sheet 10 of 38

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Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 11A - 11F Sheet 11 of 38



Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300

Sheet 12 of 38 FIG. 12

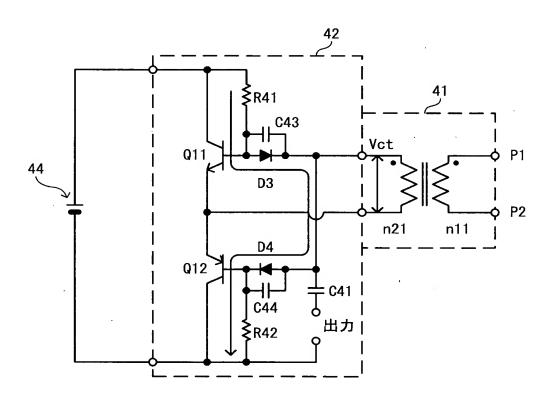


FIG. 12

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2

Contact: Mitchell P. Brook; 858-720-6300 FIG. 13 Shee Sheet 13 of 38

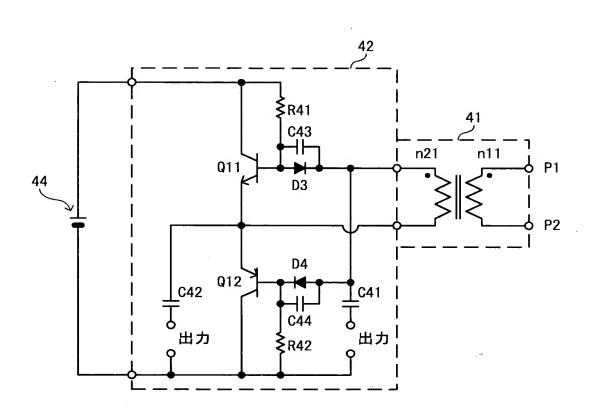


FIG.13

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 14 Sheet 14 of 38

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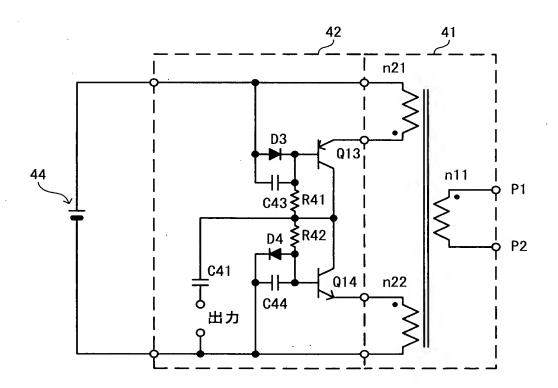


FIG.14

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 15 Sheet 15 of 38

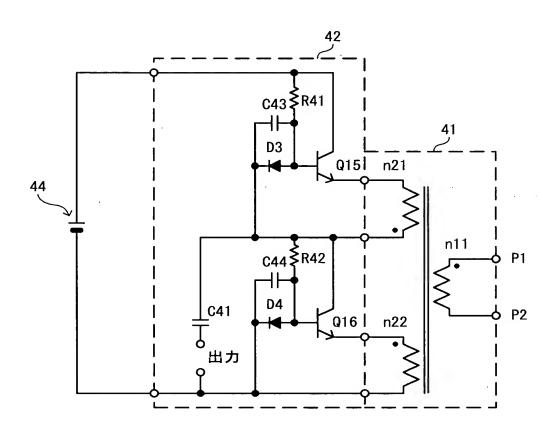


FIG.15

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2

Contact: Mitchell P. Brook; 858-720-6300

Sheet 16 of 38 FIG. 16

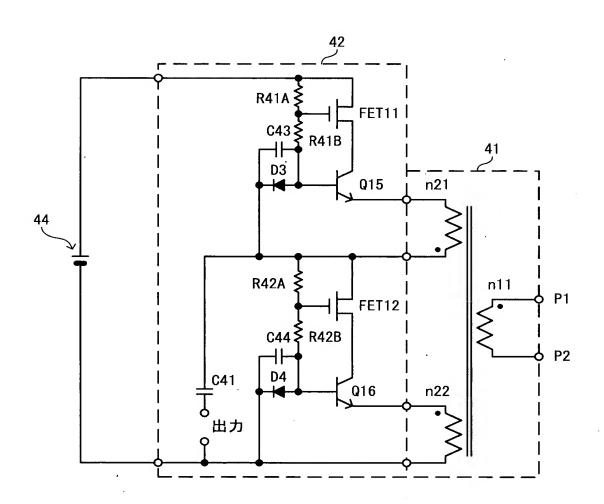


FIG. 16

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 17 Sheet 17 of 38

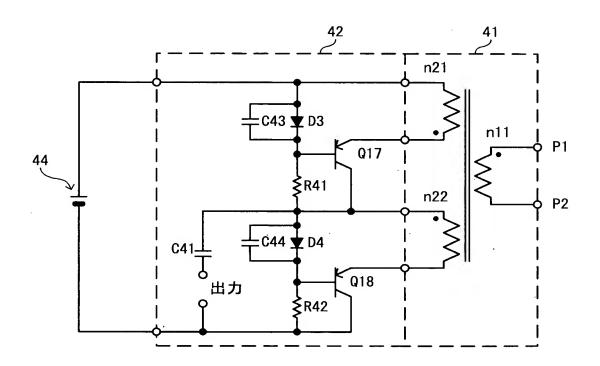


FIG.17

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 18 Sheet 18 of 38

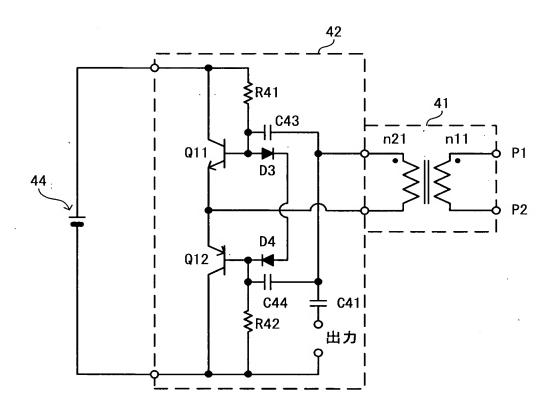


FIG.18

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 19 Sheet 19 of 38

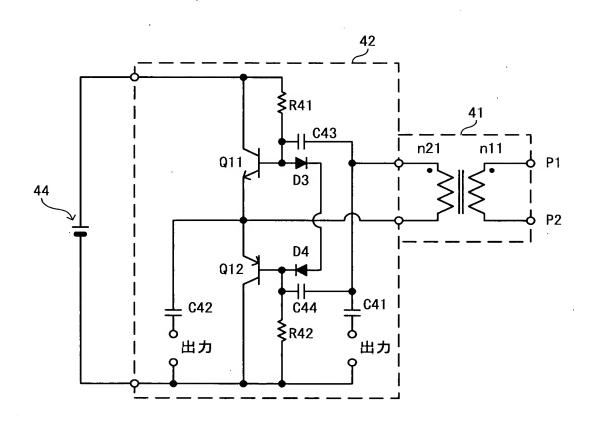
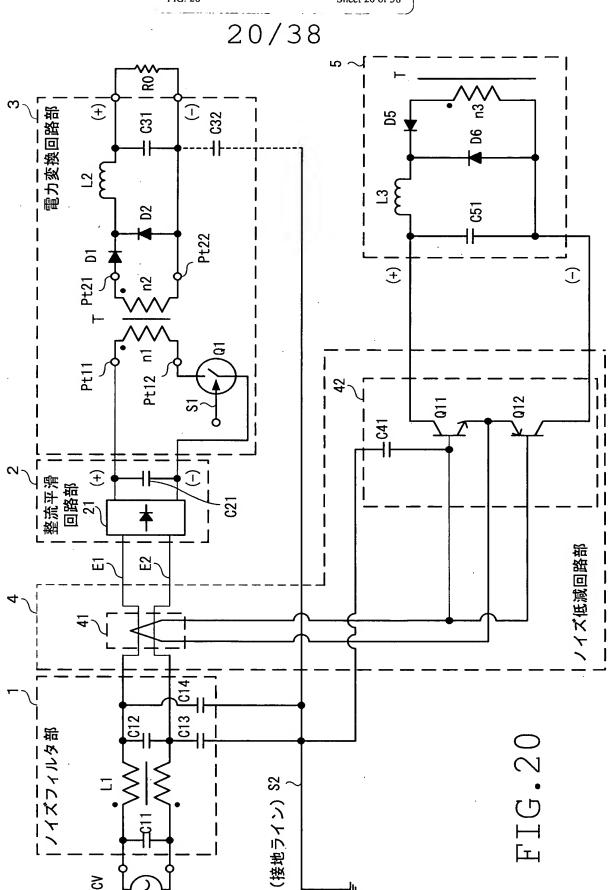


FIG.19

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003
Atty. Docket No.: 31904-2
Contact: Mitchell P. Brook; 858-720-6300
FIG. 20 Sheet 20 of 38



Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 21 Sheet 21 of 38

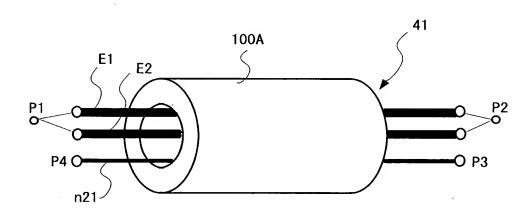


FIG.21

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 22 Sheet 22 of 38

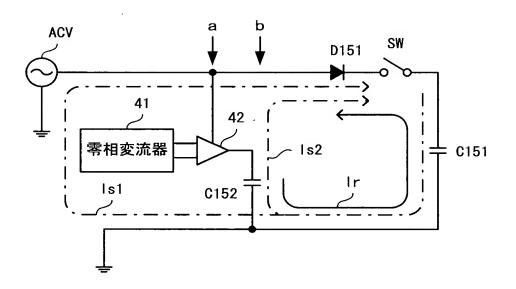
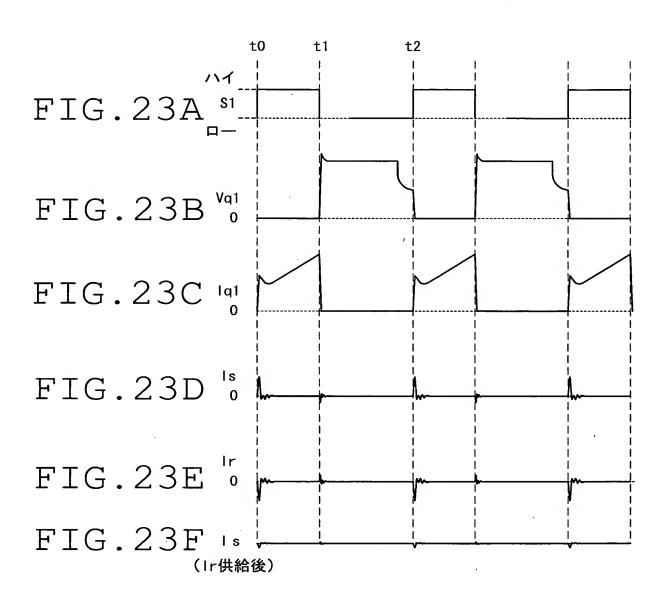


FIG.22

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 23A - 23F Sheet 23 of 38



Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ...

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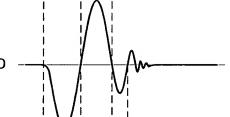
Inventor: TSURUYA Filed: November 13, 2003
Atty. Docket No.: 31904-2

Contact: Mitchell P. Brook; 858-720-6300

FIG. 24A - 24E







t11 t12 t13

FIG.24B

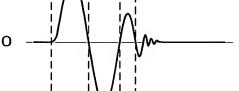
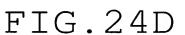


FIG.24C

lq11



lq12 0

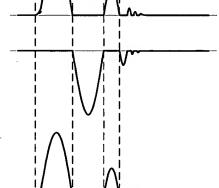


FIG.24E

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 25 Sheet 25 of 38

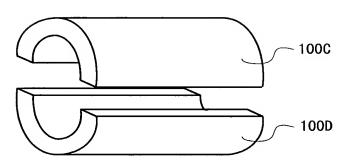


FIG.25

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 26 Shee

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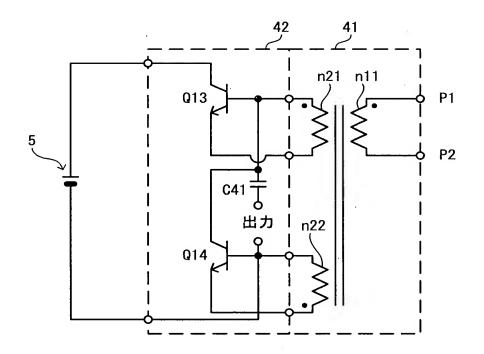


FIG.26

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003
Atty. Docket No.: 31904-2
Contact: Mitchell P. Brook; 858-720-6300
FIG. 27 Sheet 27 of 38

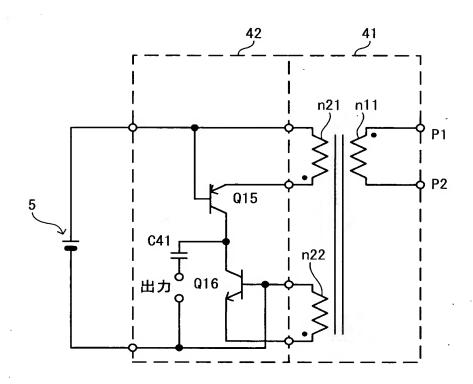


FIG.27

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 28 Sheet 28 of 38

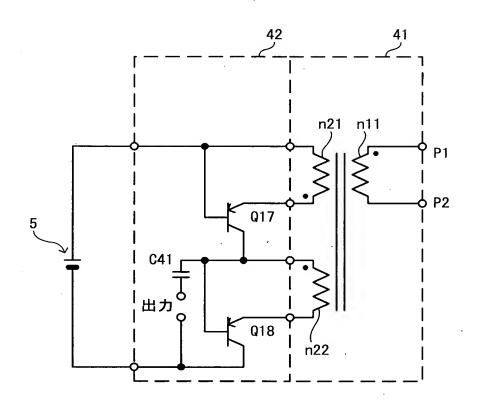


FIG.28

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 29 Sheet 29 of 38

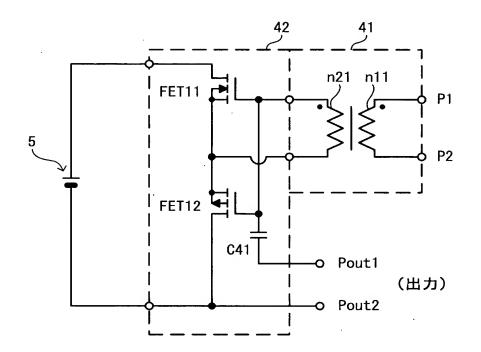


FIG.29

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300

FIG. 30 Sheet 30 of 38

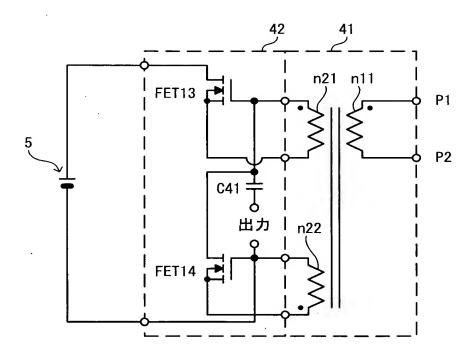


FIG.30

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003

Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300

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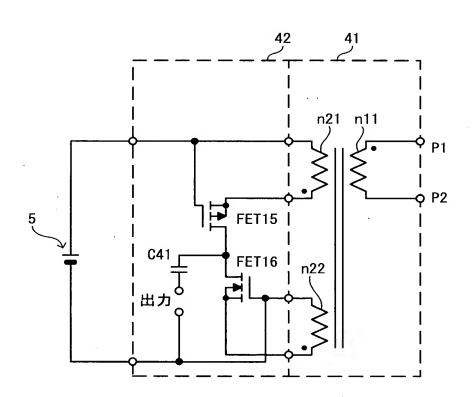


FIG.31

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2

Contact: Mitchell P. Brook; 858-720-6300

FIG. 32 Sheet 32 of 38

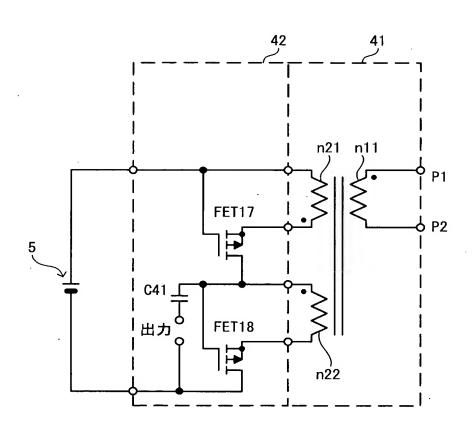


FIG.32

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 33 Sheet 33 of 38

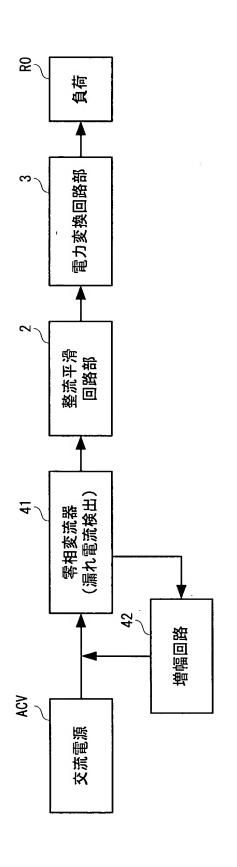
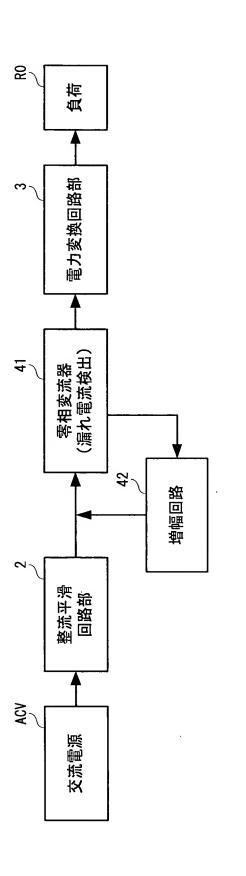


FIG. 33

Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 34 Sheet 34 of 38

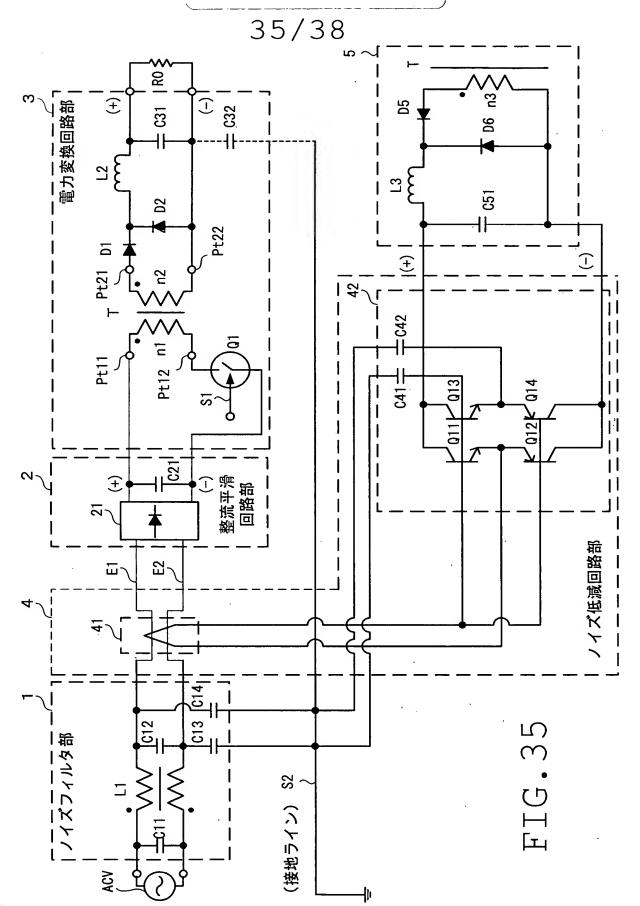


FIG

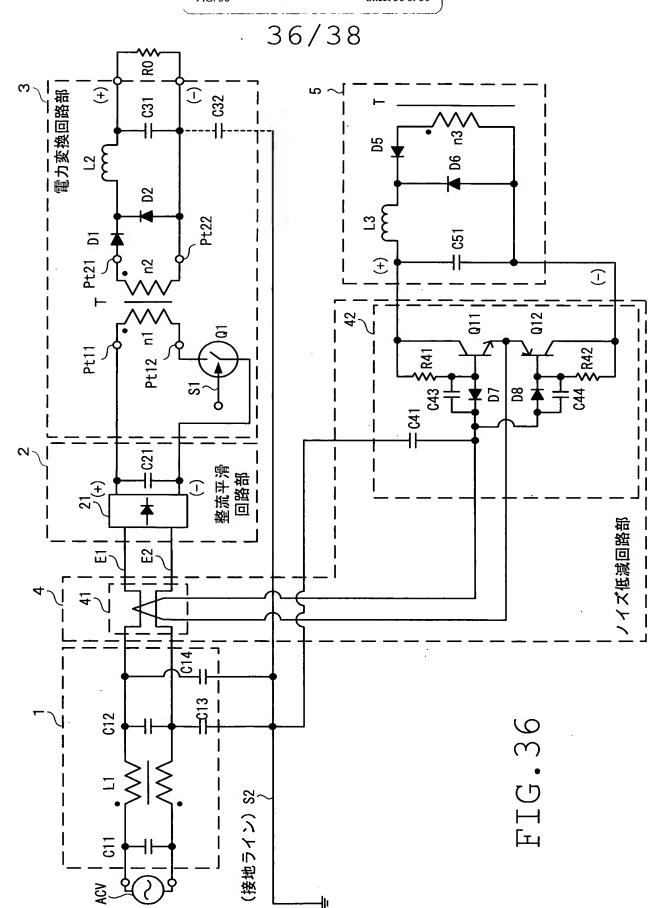
Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003

Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300

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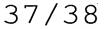


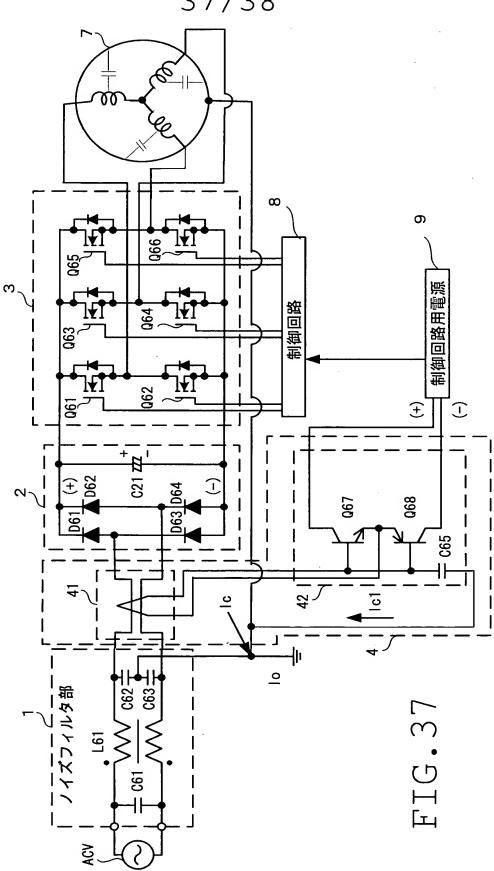
Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 36 Sheet 36 of 38



Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300

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Title: AMPLIFICATION CIRCUIT, NOISE REDUCTION CIRCUIT AND POWER ... Inventor: TSURUYA Filed: November 13, 2003 Atty. Docket No.: 31904-2 Contact: Mitchell P. Brook; 858-720-6300 FIG. 38A - 38B Sheet 38 of 38

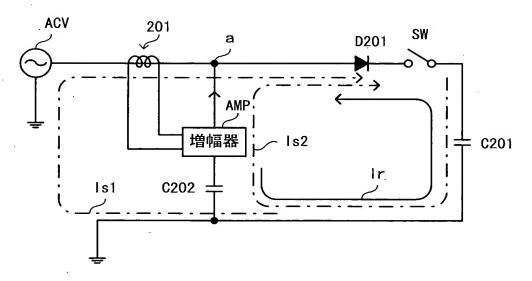


FIG.38A

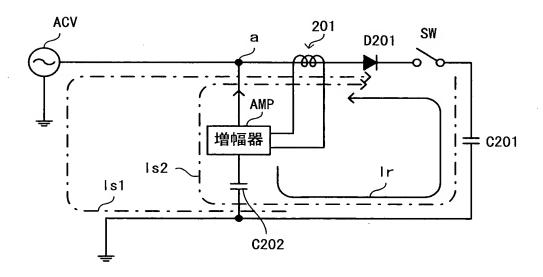


FIG.38B